

## РАЗДЕЛ 3. ПЕРСПЕКТИВНЫЕ НАПРАВЛЕНИЯ РАЗВИТИЯ ЛОГИСТИЧЕСКИХ СИСТЕМ И ОПТИМИЗАЦИЯ ПРОЦЕССОВ В ЦЕПЯХ ПОСТАВОК

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### DEVELOPMENT OF 3PL SERVICES USAGE IN AGRICULTURAL COOPERATIVES

Logistic services encompass anything that involves management of the way resources are moved to the areas where they are required. A3PL (third-party logistics) is a provider of outsourced logistics services. 3PL is the function by which the owner of goods (The Client Company) outsources various elements of the supply chain to one 3PL company that can perform the management function of the clients inbound freight, customs, warehousing, order fulfilment, distribution, and outbound freight to the clients customers (The Essential...). A 3PL service may be a single service such as transportation or warehouse storage or it can be a system-wide bundle of services capable of managing the entire supply chain. In business, 3PL has a broad meaning that can be applied to any service contract that involves storing or shipping things.

The main functions of the agricultural cooperatives in Lithuania are the following: providing farm inputs (supply cooperatives) — about 50 percent; joint production (production cooperative) — about 25 percent; providing farm machinery services (machinery cooperatives) — about 20 percent; processing farm products (processing cooperative) — about 5 percent. All they need to organize and manage certain logistics activities. Utilizing a 3PL cooperatives can have reliable logistics advantage and maximizes profitability and member's satisfaction through combined outsourced knowledge and resources.

**Research problem:** What are the possibilities for agricultural cooperatives to use 3PL services in order to increasing value of the logistical processes?

**The aim of the paper** — to reveal opportunities and development of 3PL services usage for agricultural cooperatives, by increasing value of the logistics processes and value added for cooperatives.

**Research methods:** analysis of scientific literature, comparative method, qualitative research, content analysis.

**Keywords:** 3PL (third-party logistics); logistic service; cooperative.

Using a 3PL provider offers a lots of advantages. The biggest is that by handing over these logistics, agricultural cooperatives can focus on other aspects of own business such as sales, marketing and products or production development.

There are a variety of different 3PL companies and them all offer different levels of service. Some take care of warehousing and fulfillment only, some add forecasting to their services, others focus mostly on shipping and delivery (Third Party...).

Some companies only take over the fulfillment and shipping of orders and have many clients. Others offer integrated solutions and only have a few clients that they focus on exclusively to provide a much more customized, in-depth service.

Hiring a 3PL company to take care of agricultural cooperatives logistics can really improve its supply chain and increase sales. It take the time to weigh all the pros and cons, and to ensure a good fit between agricultural cooperative needs and cooperative's 3PL services provider.

Possible 3PL services for agricultural cooperatives:

- transportation (grain, fruit and vegetables, raw milk, farm inputs);
- warehousing (grain, fruit and vegetables, farm inputs);
- picking and packing (fruit and vegetables for wholesale, retail);
- inventory forecasting (spare parts for technique, farm inputs);

Some of 3PL services for agricultural cooperatives are very specific and requires a big investments and/or special knowledge, i. e. raw milk collection at cooperative's members farms, different services of grain elevators, etc. But in general, agricultural cooperatives and its members can benefit from 3PL services (see table 1).

**Table 1.** 10 Benefits of 3PL services to agricultural cooperatives

No.	Benefit type	Description
1.	Time Saving	Outsourcing cannot only save money in the long run but it will also save something of equal value — time. Daily logistical tasks allows to spend more time on growing business of agricultural cooperatives
2.	Cost Efficiency	3PL services will provide agricultural cooperatives with warehouse space, technology, and transportation
3.	Accountability	A good 3PL service provider will take responsibility for business and will held accountable to standards
4.	Innovation	3PL providers are an expert in theirs. A provider has the ability to work and apply their knowledge to enhance and improve agricultural cooperatives bottom line in an innovative way
5.	Expertise	Most 3PL providers are passionate about what they do. As a result, they will integrate their level of expertise with agricultural cooperatives business practices to ensure the best customer service experience possible
6.	Adjustable	As a 3PL provider owns the warehouse space and transportation, they also have the ability to increase all logistical needs as agricultural cooperatives business grows. Also, if agricultural cooperatives offers a seasonal product or sales are cyclical, a good 3PL provider will adjust needs accordingly
7.	Optimization	Having the necessary resources that agricultural cooperatives may not have access 3PL insure that logistical needs are met in the most effective manner

8.	Technology	3PL companies have the ability to make significant investments in their technology and software that would be unfathomable for agricultural cooperatives
9.	Network	3PL providers have a vast network of resources and established relationships with providers that can offer the most cost-efficient service possible for agricultural cooperatives
10.	Reduce Risks	Outsourcing cooperative's logistical needs not only reduces labor risks but it also reduces agricultural cooperatives financial risk of an investment in property, equipment, and transportation

However, a 3PL services isn't easy to apply to every agricultural cooperatives activity. There are some areas where agricultural cooperatives need to consider what the impact to their business 3PL will do.

**Table 2.** Considerable areas of 3PL impact to agricultural cooperatives activity

No.	Considerable area	Description of impact
1.	Weaker control over the delivery process	With a 3PL taking care of transportation and shipping, there can be challenges when there are delays or problems in shipping a customer's order. The customer will be looking at agricultural cooperative for the resolution, not to 3PL service provider.
2.	Larger upfront investment	On the flip side of the cost issue, while hiring a 3PL can pay for itself in the long run, the investment can still be a large cost in the beginning. If agricultural cooperatives don't need a big warehouse or don't have many orders, the cost of a 3PL can be prohibitive.
3.	More distance between cooperatives and cooperative's product.	The 3PL which cooperatives choose may position agricultural cooperative far away from products, which would be an inconvenience if cooperatives run into quality control issues, or need to physically inspect stock for any reason.
4.	Lost of information	With a 3PL taking care of orders and its execution, agricultural cooperatives may feel lack of up to date information

Decision to use 3PL service or not are very complicated and complex for agricultural cooperatives. It depends on many different internal and external circumstances, the importance of which in each particular case depends on a multitude of factors — the level of specialization, production volumes, production type, size of cooperative, owners and managers perceptions of business, availability of 3 PL services.

- Qualitative research showed that use of 3PL in agricultural cooperatives makes positive impact on the logistical processes in supply chain management. It creates added value for the agricultural cooperatives, which can be expressed in decline of costs, customers satisfaction growth, higher potential to offer better range of services for cooperatives members, labor volume growth.

- 3PL have an impact on increasing agricultural cooperatives competitiveness in the market, when the use of 3PL services create conditions to operate in wider markets, reduce costs, investments, increase range of services to offer members and customers better prices, better logistical process execution conditions.

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## ВЛИЯНИЕ M2M-ТЕХНОЛОГИЙ НА ОБЩИЕ ЛОГИСТИЧЕСКИЕ ЗАТРАТЫ

На современном этапе развития экономики переход общества к информационным и наукоемким технологиям вводит в оборот информационные ресурсы. Современные информационные технологии M2M — это часть научно-технического и компьютерно-информационного прогресса.

Machine-to-Machine, M2M — общее название технологии, которая позволяет удалённому устройству передавать в центр обработки информации данные о контролируемом объекте. В качестве M2M-устройств могут выступать системы телеметрии, датчики освещённости, давления и прочих важных для операционной деятельности параметров технологических систем. M2M-технологии позволяют объединить удаленные объекты и системы для автоматизации бизнес-процессов с использованием проводных и беспроводных технологий. Область применения M2M расширяется с большой скоростью. Сегодня это: контроль любых движущихся объектов (автопарк, железнодорожные перевозки и любые перемещающиеся